**IT Applications Unit 3, AOS 1, Online Communities**

Complete the following, from pgs 3-14

**Networks are classified according to below and we will study the following:**

1. **Network Categories: LAN, WAN**
2. **Network Architecture, client-server; peer-to-peer; internet peer-to-peer; intranet**
3. **Network communication standards**
4. **Network hardware and software**
5. **Transmission media**
6. **Network security**

**What is a network?**

1. Describe the role of a network.

Networks are widely used to share knowledge and resources.

1. What is groupware software? Provide an example.

Groupware software is application software designed to help people involved in a common task to achieve goals. e.g. Microsoft SharePoint

1. Describe the nature of social networking sites.

Social networking sites are used to interact and share with other people.

1. What is meant by real time?

A system in which input data is processed within milliseconds so that it is available virtually immediately as feedback.

**Advantages of networks**

Elaborate under each of the following advantages of networks:

1. Resource sharing
   1. Internet connection

Organisations can have everyone connected to the internet continuously but only have to pay for a single connection.

* 1. Printing

Everyone can print to the same printer.

* 1. Software

They use a site licence for software.

* 1. Other resources including network-attached storage (NAS) servers

Can be directly connected to the network.

* + 1. Define a NAS server

Provides file base data storage to other devices connected to a network.

1. Remote Services
   1. Describe how a B2B network operates.
   2. What is an extranet?
   3. What are the advantages of a B2B situation?
   4. Describe the nature of EFTPOS.
2. Data and information sharing in organisations
   1. Outline how data and information sharing occurs through networks and how this is an advantage.
   2. What is meant by the process of synchronising data?
   3. How does this prevent data duplication?
3. Facilitating communications
   1. How does networks facilitate communications?

Types of networks, p 8

**1 Network categories**

1. Local Area Network, (LAN)
   1. Describe the nature of a LAN.
   2. How has the advent of wireless technology changed the nature of the definition of a LAN?
   3. What is a Node?
   4. How are LANS typically connected?
   5. Describe a wireless LAN.
2. Wide area network, (WAN)
   1. Describe the nature of a WAN including the transmission media.
   2. List the different categories of WANs
3. **Network architecture**
4. What is meant by network architecture?

Under each of the following three categories of network architecture answer the questions:

1. **Client-Server network**
   1. Describe the nature of this type of network.
   2. What is the role of a client?
   3. How does a server differ from an ordinary desktop computer?
   4. Explain what is meant by multi-tasking?
   5. Describe the nature of each of the following types of servers:
      1. File server
      2. Print server
      3. Database server
      4. Web server
      5. Domain name server
      6. Proxy server
      7. Backup server
      8. DHCP servers
      9. Active directory domain controller server
      10. Virtual server
2. **Peer-to-peer network**
   1. Describe the nature of this network.
   2. What are the limitations of this type of network?
   3. How does a simple home network operate?
3. **Internet peer-to-peer network**
   1. Describe the nature of this network.
   2. How does a user set up for this type of network?
   3. What are the risks associated with this type of network?
   4. What is BitTorrent?
   5. Complete the Think about IT, 1.5 activity on pg 13.
4. **Intranets**
   1. Define an intranet.
   2. List the benefits of an intranet.
   3. Why must an intranet reside behind a firewall?